

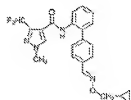
## ***DETAILED ACTION***

Claim **1-14, 19 and 22-27** have been cancelled. Therefore, claims **15-18 and 20-21** are currently pending in this Application. Claim 21 is withdrawn from further consideration pursuant to 37 CFR 1.142 (b) as being drawn to non-elected inventions. The withdrawn subject matter is patentably distinct from the elected subject matter as it differs in structure and element and would require separate search considerations. In addition, a reference, which anticipates one group, would not render obvious the other.

Note: The examiner would like to thank Applicants for pointing out that claim was not included in the groups. Please add the following to the previous restriction requirement. **Group VIII** claim 21, directed to method of use of products of Formula I.

### **Response to Restriction**

Applicants' election, with traverse, of Group I, claims 15-18 and 20 drawn to



products of Formula I and the compound of Example 7, in response, filed September 30, 2009 is acknowledged. Applicants traverse the restriction requirement with respect to claim 21 but without traverse with respect to the other groups. Claim 21 have been rejoined as discussed below. Therefore, the restriction requirement is deemed proper and made Final.

### **Rejoinder**

1. Pursuant to the procedures set forth in **MPEP § 821.04(B)**, claim **21**, directed to the process of using an allowable product, previously withdrawn from consideration as a result of a restriction requirement, is hereby rejoined and fully examined for patentability under **37 CFR 1.104**.

Because the method of use claim previously withdrawn from consideration under **37 CFR 1.142** have been rejoined, **the restriction requirement between Group I and the method of use claim 21, is hereby withdrawn**. In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also **MPEP § 804.01**.

### **Examiner's Amendment**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

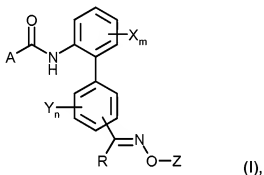
Authorization for this examiner's amendment was given in a telephone interview with Richard E. L. Henderson on January 27, 2010.

The application has been amended as follows:

**DELETE 15-17** and replace the claims with the following:

**INSERT -----**

**Claim 15:** A biphenylcarboxamide of formula (I)



in which

R represents hydrogen or C<sub>1</sub>-C<sub>6</sub>-alkyl; or represents C<sub>1</sub>-C<sub>3</sub>-haloalkyl having 1 to 7 fluorine, chlorine, and/or bromine atoms,

Z represents C<sub>3</sub>-C<sub>8</sub>-alkenyl or C<sub>3</sub>-C<sub>8</sub>-alkynyl; represents C<sub>3</sub>-C<sub>8</sub>-haloalkenyl or C<sub>3</sub>-C<sub>8</sub>-haloalkynyl having 1 to 5 fluorine, chlorine, and/or bromine atoms; or represents (C<sub>3</sub>-C<sub>8</sub>-cycloalkyl)(C<sub>1</sub>-C<sub>4</sub>-alkyl),

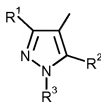
X and Y independently of one another represent halogen, cyano, nitro, C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>1</sub>-C<sub>8</sub>-alkoxy, or C<sub>1</sub>-C<sub>8</sub>-alkylthio, or represent C<sub>1</sub>-C<sub>6</sub>-haloalkyl, C<sub>1</sub>-C<sub>6</sub>-haloalkoxy, or C<sub>1</sub>-C<sub>6</sub>-haloalkylthio having 1 to 13 fluorine, chlorine, and/or bromine atoms,

m represents 0, 1, 2, 3, or 4, with the proviso that X represents identical or different radicals when m represents 2, 3, or 4,

n represents 0, 1, 2, 3, or 4, with the proviso that Y represents identical or different radicals when n represents 2, 3, or 4, and

A represents

(i) a radical of the formula

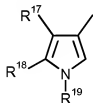


in which

- R<sup>1</sup> represents hydrogen, cyano, halogen, nitro, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-alkylthio, aminocarbonyl, or aminocarbonyl-C<sub>1</sub>-C<sub>4</sub>-alkyl; or represents C<sub>1</sub>-C<sub>4</sub>-haloalkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkoxy, or C<sub>1</sub>-C<sub>4</sub>-haloalkylthio having 1 to 5 halogen atoms,
- R<sup>2</sup> represents hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, or C<sub>1</sub>-C<sub>4</sub>-alkylthio, and
- R<sup>3</sup> represents hydrogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, hydroxy-C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>1</sub>-C<sub>4</sub>-alkylthio-C<sub>1</sub>-C<sub>4</sub>-alkyl, or C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl; represents C<sub>1</sub>-C<sub>4</sub>-haloalkyl, halo(C<sub>1</sub>-C<sub>4</sub>-alkylthio-C<sub>1</sub>-C<sub>4</sub>-alkyl), or halo(C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl) having 1 to 5 halogen atoms; or represents phenyl,

or

(ix) a radical of the formula



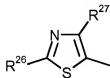
in which

- R<sup>17</sup> represents halogen, cyano, C<sub>1</sub>-C<sub>4</sub>-alkyl or represents C<sub>1</sub>-C<sub>4</sub>-haloalkyl having 1 to 5 halogen atoms,
- R<sup>18</sup> represents hydrogen, halogen, or C<sub>1</sub>-C<sub>4</sub>-alkyl; or represents C<sub>1</sub>-C<sub>4</sub>-haloalkyl having 1 to 5 halogen atoms, and
- R<sup>19</sup> represents hydrogen, cyano, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkyl having 1 to 5 halogen atoms, C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl, hydroxy-C<sub>1</sub>-C<sub>4</sub>-alkyl,

C<sub>1</sub>-C<sub>4</sub>-alkysulfonyl, di(C<sub>1</sub>-C<sub>4</sub>-alkyl)aminosulfonyl, C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl; or represents optionally substituted phenylsulfonyl or benzoyl,

or

(xii) a radical of the formula



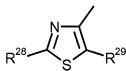
in which

R<sup>26</sup> represents hydrogen, halogen, amino, C<sub>1</sub>-C<sub>4</sub>-alkylamino, di(C<sub>1</sub>-C<sub>4</sub>-alkyl)amino, cyano, or C<sub>1</sub>-C<sub>4</sub>-alkyl; or represents C<sub>1</sub>-C<sub>4</sub>-haloalkyl having 1 to 5 halogen atoms, and

R<sup>27</sup> represents halogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, or C<sub>1</sub>-C<sub>4</sub>-haloalkyl having 1 to 5 halogen atoms,

or

(xiii) a radical of the formula



in which

R<sup>28</sup> represents hydrogen, halogen, amino, C<sub>1</sub>-C<sub>4</sub>-alkylamino, di(C<sub>1</sub>-C<sub>4</sub>-alkyl)amino, cyano, or C<sub>1</sub>-C<sub>4</sub>-alkyl; or represents C<sub>1</sub>-C<sub>4</sub>-haloalkyl having 1 to 5 halogen atoms, and

R<sup>29</sup> represents halogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, or C<sub>1</sub>-C<sub>4</sub>-haloalkyl having 1 to 5 halogen atoms,

or

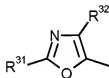
(xiv) a radical of the formula



in which  $R^{30}$  represents halogen,  $C_1$ - $C_4$ -alkyl, or  $C_1$ - $C_4$ -haloalkyl having 1 to 5 halogen atoms,

or

(xv) a radical of the formula



in which

$R^{31}$  represents hydrogen or  $C_1$ - $C_4$ -alkyl, and

$R^{32}$  represents halogen or  $C_1$ - $C_4$ -alkyl.

**Claim 16:** A biphenylcarboxamide of formula (I) as claimed in Claim 15 in which

R represents hydrogen,  $C_1$ - $C_4$ -alkyl, or  $C_1$ - $C_3$ -haloalkyl having 1 to 7 fluorine, chlorine, and/or bromine atoms,

Z represents  $C_3$ - $C_6$ -alkenyl or  $C_3$ - $C_6$ -alkynyl; represents  $C_3$ - $C_6$ -haloalkenyl or  $C_3$ - $C_6$ -haloalkynyl having 1 to 5 fluorine, chlorine, and/or bromine atoms; or represents  $(C_3$ - $C_6$ -cycloalkyl)-(C<sub>1</sub>-C<sub>4</sub>-alkyl),

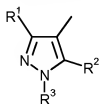
X and Y independently of one another represent fluorine, chlorine, bromine, cyano, nitro,  $C_1$ - $C_6$ -alkyl,  $C_1$ - $C_6$ -alkoxy, or  $C_1$ - $C_6$ -alkylthio, or represent  $C_1$ - $C_2$ -haloalkyl,  $C_1$ - $C_2$ -haloalkoxy, or  $C_1$ - $C_2$ -haloalkylthio having 1 to 5 fluorine, chlorine, and/or bromine atoms,

m represents 0, 1, 2, or 3, with the proviso that X represents identical or different radicals when m represents 2 or 3,

n represents 0, 1, 2, or 3, with the proviso that Y represents identical or different radicals when m represents 2 or 3, and

A represents

- (i) a radical of the formula

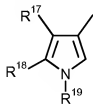


in which

- R<sup>1</sup> represents hydrogen, cyano, fluorine, chlorine, bromine, iodine, methyl, ethyl, isopropyl, cyclopropyl, methoxy, ethoxy, methylthio, ethylthio, aminocarbonyl, aminocarbonylmethyl, aminocarbonylethyl; represents C<sub>1</sub>-C<sub>2</sub>-haloalkyl or C<sub>1</sub>-C<sub>2</sub>-haloalkoxy having 1 to 5 fluorine, chlorine, and/or bromine atoms; or represents trifluoromethylthio or difluoromethylthio,
- R<sup>2</sup> represents hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl, methoxy, ethoxy, methylthio, or ethylthio, and
- R<sup>3</sup> represents hydrogen, methyl, ethyl, n-propyl, isopropyl, hydroxymethyl, hydroxyethyl, cyclopropyl, cyclopentyl, or cyclohexyl; represents C<sub>1</sub>-C<sub>2</sub>-haloalkyl having 1 to 5 fluorine, chlorine, and/or bromine atoms; or represents phenyl,

or

- (ix) a radical of the formula



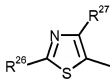
in which

- R<sup>17</sup> represents fluorine, chlorine, bromine, cyano, methyl, ethyl, or isopropyl, or represents C<sub>1</sub>-C<sub>2</sub>-haloalkyl having 1 to 5 fluorine, chlorine, and/or bromine atoms,

- $R^{18}$  represents hydrogen, fluorine, chlorine, bromine, methyl, or ethyl, or represents  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine, and/or bromine atoms, and
- $R^{19}$  represents hydrogen, methyl, or ethyl; represents  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine, and/or bromine atoms; or represents  $C_1$ - $C_2$ -alkoxy- $C_1$ - $C_2$ -alkyl, hydroxymethyl, hydroxylethyl, methylsulfonyl, or dimethylaminosulfonyl,

or

- (xii) a radical of the formula

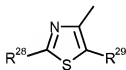


in which

- $R^{26}$  represents hydrogen, fluorine, chlorine, bromine, amino,  $C_1$ - $C_4$ -alkylamino, di( $C_1$ - $C_4$ -alkyl)amino, cyano, methyl, or ethyl, or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine, and/or bromine atoms, and
- $R^{27}$  represents fluorine, chlorine, bromine, methyl, ethyl, or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine, and/or bromine atoms,

or

- (xiii) a radical of the formula



in which

- $R^{28}$  represents hydrogen, fluorine, chlorine, bromine, amino,  $C_1$ - $C_4$ -alkylamino, di( $C_1$ - $C_4$ -alkyl)amino, cyano, methyl, or ethyl, or represents  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine, and/or bromine atoms, and



$R^{29}$  represents fluorine, chlorine, bromine, methyl, or ethyl, or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine, and/or bromine atoms,

or

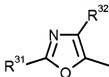
(xiv) a radical of the formula



in which  $R^{30}$  represents fluorine, chlorine, bromine, methyl, or ethyl, or  $C_1$ - $C_2$ -haloalkyl having 1 to 5 fluorine, chlorine, and/or bromine atoms,

or

(xv) a radical of the formula



in which

$R^{31}$  represents hydrogen, methyl, or ethyl, and

$R^{32}$  represents fluorine, chlorine, bromine, methyl, or ethyl.

**Claim 17:** A biphenylcarboxamide of formula (I) as claimed in Claim 15 in which

R represents hydrogen, methyl, ethyl, isopropyl, or tert-butyl,

Z represents allyl, 2-butenyl, 2-methylallyl, 1-methylallyl, 3-methyl-2-butenyl, propargyl, 2-butylnyl, 3-butylnyl, 2-methyl-3-butylnyl, 3,3-difluoroallyl, 3,3-dichloroallyl, cyclopropylmethyl, cyclopentylmethyl, or cyclohexylmethyl,

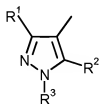
X and Y independently of one another represent fluorine, chlorine, bromine, cyano, nitro, methyl, ethyl, n-propyl, isopropyl, n-butyl, sec-butyl, isobutyl, tert-butyl, methoxy, ethoxy, methylthio, trichloromethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl, difluoromethoxy, trifluoromethoxy, trifluoromethylthio, or difluorochloromethylthio,

m represents 0 or 1,

n represents 0, 1, or 2, with the proviso that Y represents identical or different radicals when n represents 2, and

A represents

(i) a radical of the formula



in which

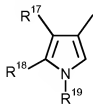
R<sup>1</sup> represents hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl, isopropyl, cyclopropyl, methoxy, ethoxy, methylthio, ethylthio, monofluoromethyl, difluoromethyl, trifluoromethyl, difluorochloromethyl, trichloromethyl, trifluoromethoxy, trichloromethoxy, trifluoromethylthio, or difluoromethylthio,

R<sup>2</sup> represents hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl, methoxy, ethoxy, methylthio, or ethylthio, and

R<sup>3</sup> represents hydrogen, methyl, ethyl, hydroxymethyl, hydroxyethyl, trifluoromethyl, difluoromethyl, or phenyl,

or

(ix) a radical of the formula



in which

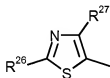
R<sup>17</sup> represents fluorine, chlorine, bromine, cyano, methyl, ethyl, isopropyl, trifluoromethyl, difluoromethyl, difluorochloromethyl, or trichloromethyl,

$R^{18}$  represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl, trifluoromethyl, difluoromethyl, or trichloromethyl, and

$R^{19}$  represents hydrogen, methyl, ethyl, trifluoromethyl, methoxymethyl, ethoxymethyl, hydroxymethyl, or hydroxyethyl,

or

(xii) a radical of the formula



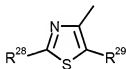
in which

$R^{26}$  represents hydrogen, fluorine, chlorine, bromine, amino, methylamino, dimethylamino, cyano, methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl, or trichloromethyl, and

$R^{27}$  represents fluorine, chlorine, bromine, methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl, or trichloromethyl,

or

(xiii) a radical of the formula



in which

$R^{28}$  represents hydrogen, fluorine, chlorine, bromine, amino, methylamino, dimethylamino, cyano, methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl, or trichloromethyl, and

$R^{29}$  represents fluorine, chlorine, bromine, methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl, or trichloromethyl,

or

(xiv) a radical of the formula

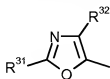
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in which R<sup>30</sup> represents fluorine, chlorine, bromine, methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl, or trichloromethyl,

or

(xv) a radical of the formula



in which

R<sup>31</sup> represents hydrogen, methyl, or ethyl, and

R<sup>32</sup> represents fluorine, chlorine, bromine, methyl, or ethyl.

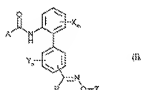
including a stereoisomer thereof, or a pharmaceutically acceptable salt thereof. -

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### ***Reasons for Allowance***

The following is an examiner's statement of reasons for allowance:

The present invention is to biphenylcarboximide products of Formula



as defined in claim 15. The invention is also directed to a

method of use of product of Formula I, in the control of unwanted microorganisms. The closest prior art is U.S. Patent No. 7,176,228 B2. The products described in this Application differ from the prior art is that variable Z represents C<sub>3</sub>-C<sub>8</sub>-alkenyl or C<sub>3</sub>-C<sub>8</sub>-alkynyl; represents C<sub>3</sub>-C<sub>8</sub>-haloalkenyl or C<sub>3</sub>-C<sub>8</sub>-haloalkynyl having 1 to 5 fluorine, chlorine, and/or bromine atoms; or represents (C<sub>3</sub>-C<sub>8</sub>-cycloalkyl)(C<sub>1</sub>-C<sub>4</sub>-alkyl). In the prior art Z represents H or C1-C6 alkyl. None of the published compounds anticipated, or rendered obvious, the

apparatus as described in this application. Therefore, claims 15-18 and 20-21 are allowable.

Any comments considered necessary by applicant must be submitted no later than the payment issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement for Reasons for Allowance."

**Telephone Inquiry**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kamal A Saeed, Ph.D. phone number is (571) 272-0705. The examiner can normally be reached on M-T 7:00 AM- 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Joseph K. McKane, can be reached at (571) 272-0699.

Communication via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise requires a signature, may be used by applicant and should be addressed to [joseph.mckane@uspto.gov]. All Internet e-mail communications will be made of record in the application file. PTO employees will not communicate with applicant via Internet e-mail where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is of record an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the applicant. See the Interim Internet Usage Policy published by the Patent and Trademark Office Official Gazette on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or public PAIR only. For more information about the pair system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

/Kamal A Saeed/

Primary Examiner, Art Unit 1626